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Preliminary Estimates of Salmon Catches and Artificial Production of Juvenile Salmonids in Alaska in 1992

by

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ABSTRACT

This report provides preliminary 1992 catch statistics, hatchery eggtake and hatchery juvenile release numbers for Pacific salmon in Alaska. The 1992 salmon harvest numbers have yet to be finalized, but the final numbers are expected to differ slightly, if at all, from the numbers presented here. The commercial harvest dominated the catch statistics for all species except chinook salmon. The estimated statewide commercial catch was 137 million fish, distributed as 58.7 million sockeye salmon, 60.3 million pink salmon, 10.5 million chum salmon, 7.02 million coho salmon, and 611 thousand chinook salmon. For non-chinook species, the commercial catch made up well over 90% of the estimated statewide catch. For chinook salmon, sport and subsistence harvest are expected to make up at least 30% of the total catch, when final estimates become available. In 1992, Alaskan hatchery operators took 1.75 billion salmon eggs, of which approximately 62% were pink salmon eggs, and 30% were chum salmon eggs. They released 1.34 billion juvenile salmon into the marine environment in 1992, of which approximately 60% were pink salmon, and 32% were chum salmon.

INTRODUCTION AND OVERVIEW

The Alaskan salmon fisheries are divided into commercial, sport, and subsistence. The commercial fisheries harvest the largest number of salmon. When totaled over all species, the sport harvest and the subsistence harvest make up no more than a few percent of the number of fish harvested in the commercial fishery. Fish sold in the commercial fisheries are tracked through an official document called a fish ticket that must be filled out when the fish are first sold (Alaska Administrative Code 39.130). Fish ticket records dating to 1969 are maintained in a central computer database in Juneau, which provides a means to generate accurate catch statistics from the commercial fishery. No records are maintained of fish caught in the sport fisheries. Creel surveys operate on several important sport fisheries, and a post-season statewide mail survey of sport anglers is conducted annually (Mills 1991 is the most recent). Some subsistence fisheries are monitored through a system of permits, and in some cases, estimates are made by interviews in rural villages. The Alaska Department of Fish and Game does not monitor or estimate escapement for all salmon runs. Escapement is monitored and estimated fairly accurately for major sockeye-producing systems, such as Bristol Bay and Chignik. Escapement is also monitored and estimated for some pink salmon runs over broad areas, but these estimates are generally inaccurate and imprecise. Escapement summaries are not provided in this report. Currently, research is underway to reexamine the escapement data. We expect to be able to present a report on escapement in some Alaskan salmon runs late in 1994.

In Alaska, almost all salmon still come from wild stocks; the most notable exceptions are pink salmon in Prince William Sound and chinook salmon in Southeast Alaska, where hatchery production makes up a large share of the total. By law, salmon farming is not allowed (Alaska Statute 16.40.210). We define salmon farming to be the commercial production of Pacific salmon captive throughout their lives. Artificial production through ocean ranching of fish cultured as juveniles has been allowed and encouraged. However, only private nonprofit corporations, certain institutions involved in education, and the Alaska Department of Fish and Game FRED Division are allowed to operate hatcheries. Currently, most of the artificial production comes from hatcheries operated by private nonprofit corporations.

For the purposes of the commercial fisheries management, Alaska is divided into four regions (denoted Regions I through IV in Figure 1.). The regions are further divided into areas, where local managers reside. The areas are further divided into smaller fishing districts and subdistricts. Commercial catch is recorded at the districts and subdistrict level. Forecasts of specific runs, together with harvest outlooks and preliminary summaries of the previous season's harvest for all commercial salmon fisheries in Alaska have been published yearly by the Alaska Department of Fish and Game since 1969 (ADF&G 1969-1984; Eggers 1985, 1986; Eggers and Dean 1987, 1988; Geiger and Savikko 1989-1993). These reports also provide preliminary statistics and detailed descriptions of the previous year's commercial fishery. Escapement estimates for some runs are available in these reports. Commercial harvest statistics for the period 1878 to 1991 are available in Rigby et al. (1991). Records of artificial production have annually produced by the Alaska Department of Fish and Game in the FRED Annual Report Series, which began in 1983 (McMullen et al. 1983; McMullen and Hansen 1984; Hansen 1985-1987; Holland 1988-1990; McKean 1991; Holland and McKean 1992; McNair and Holland 1993). The estimates of adult salmon produced from Alaska's hatcheries are generated in a variety of ways. Some estimates are little more than guesses, while others, such as the

estimates of hatchery pink salmon in Prince William Sound, are based on extensive coded wire tag studies (e.g. Peltz and Miller 1991).

THE COMMERCIAL FISHERIES

Final harvest numbers for the 1992 Alaska commercial salmon harvest are still not available. The preliminary estimates provided here are from Geiger and Savikko (1993). The commercial catch of salmon in Alaska was estimated to be 137 million fish. The ex-vessel value of the 1992 harvest was the second largest on record, estimated to be worth over $575 million to the fishing fleet. This compares to the record ex-vessel value of about $750 million in 1988.

The 1992 season produced a record sockeye salmon catch of 58.7 million fish worth over $445 million, ex-vessel. That value alone far exceeds the entire 1991 all-species value of $310 million. Sockeye salmon accounted for about 43% of the statewide harvests. The 1992 record catch was fueled by the second largest catch in Upper Cook Inlet's history, and the third largest catch in Bristol Bay's history. Commercial fishermen caught about 60.3 million pink salmon in Alaska, accounting for about 44% of the total salmon landings -- down considerably from the 128 million pink salmon record established in 1991. Chum salmon landings continued a recent downward trend, and represented about 8% of the total 1992 Alaska harvest. Coho and chinook catches contributed 5% and less than 1% to the statewide total, respectively.

In Alaska, the commercial salmon fisheries have limited access. There are approximately 12,000 limited-entry salmon permits, authorizing access to these commercial salmon fisheries. In 1992, most driftnet permit holders in Bristol Bay's Egegik District did exceptionally well. Cook Inlet driftnet permit holders and eastside setnet permit holders took advantage of a sockeye return far stronger than anticipated. Southeast seiners targeted a strong return of pink salmon. For others the season was a major disappointment. Pink salmon failed to show in projected numbers in Prince William Sound, Lower Cook Inlet, and Kodiak. Weak fall chum salmon returns to Yukon prevented any commercial fishery during the fall season. Some setnet permit holders in Cook Inlet and Bristol Bay had little opportunity because of the nature of salmon returns to the river systems they fished. Specific catch figures can be found in Table 1.

THE SPORT FISHERIES

Based on a mail survey of licensed anglers, Mills (*in press*) estimated slightly over one million salmon were harvested in Alaskan sport fisheries in 1992. His estimate includes 154 thousand chinook salmon, 346 thousand coho salmon, 373 thousand sockeye salmon, 149 thousand pink salmon, and 17 thousand chum salmon. Alaska is divided into three statistical regions for the purposes of sport fishing statistics: Southeast Statistical Region; Central Statistical Region; the Western Statistical Region, also known as the Arctic-Yukon-Kuskokwim Region. Figure 1 shows the location of these

regions. Mills' estimates, by statistical region and in a historical context, are provided in Tables 2.1 - 2.6.

SUBSISTENCE FISHERIES

Final estimates for subsistence fisheries are still pending for 1992 in several areas of Alaska. The estimates that are currently available are presented in Table 3.

PRODUCTION FROM ALASKAN HATCHERIES

Alaskan hatchery production statistics for 1992 can be found in McNair and Holland (1993). Production information by area, is found in Tables 4.1 and 4.2. and is taken directly from McNair and Holland (1993). Table 4.1 provides eggtake statistics, and Table 4.2 provides numbers of juvenile salmon released as part of commercial and sport fish enhancement activities. An additional 954 thousand juvenile salmon were released as part of educational projects in 1992, but do not appear in these tables. Hatchery operators and state enhancement biologists estimated that 23.6 million adult salmon returned because of their enhancement efforts, including hatcheries, lake stocking, and habitat improvements. Pink salmon made up just over 60% of their estimate. They further estimated that 18.7 million of the total adults made their way into commercial channels. The State of Alaska is currently trying to end its involvement in large-scale commercial production of salmon. This function has been handed over to private nonprofit corporations. Most salmon releases came from private nonprofit hatcheries in 1992. To provide a historical context, fry or smolt release numbers from private nonprofit hatcheries are presented in Table 5 for the years 1976 to 1992.

LITERATURE CITED

Alaska Department of Fish and Game. 1969. A summary of preliminary 1970 salmon forecasts for Alaskan fisheries (W.H Noerenberg and M.C. Seibel *ed.*). Informational Leaflet 136. Alaska Department of Fish and Game. Juneau, Alaska. 52 pp.

_____. 1970. A summary of preliminary 1971 forecasts for Alaskan salmon fisheries (M.C. Seibel *ed.*). Informational Leaflet 149. Alaska Department of Fish and Game. Juneau, Alaska. 35 pp.

_____. 1971. A summary of preliminary 1972 forecasts for Alaska salmon fisheries (M.C. Seibel *ed.*). Informational Leaflet 155. Alaska Department of Fish and Game. Juneau, Alaska. 42 pp.

_____. 1972. A summary of preliminary 1973 forecasts for Alaskan salmon fisheries (M.C. Seibel *ed.*). Informational Leaflet 160. Alaska Department of Fish and Game. Juneau, Alaska. 44 pp.

_____. 1973. A summary of preliminary 1974 forecasts for Alaskan salmon fisheries (M.C. Seibel *ed.*). Informational Leaflet 164. Alaska Department of Fish and Game. Juneau, Alaska. 47 pp.

_____. 1975. A summary of preliminary 1975 forecasts for Alaskan salmon fisheries (M.C. Seibel and C.P. Meacham *ed.*). Informational Leaflet 167. Alaska Department of Fish and Game. Juneau, Alaska. 55 pp.

_____. 1976. A summary of preliminary 1976 forecasts for Alaskan salmon fisheries (D.L. Waltemyer and S.C. Lindstrom *ed.*). Informational Leaflet 169. Alaska Department of Fish and Game. Juneau, Alaska. 49 pp.

_____. 1977. Preliminary forecasts and projections for 1977 Alaskan salmon fisheries (J.A. Carson and I. Frohne *ed.*). Informational Leaflet 171. Alaska Department of Fish and Game. Juneau, Alaska. 39 pp.

_____. 1978. Preliminary forecasts and projections for 1978 Alaskan salmon fisheries. Informational Leaflet 173. Alaska Department of Fish and Game. Juneau, Alaska. 36 pp.

_____. 1979. Preliminary forecasts and projections for 1979 Alaskan salmon fisheries. Informational Leaflet 177. Alaska Department of Fish and Game. Juneau, Alaska. 37 pp.

_____. 1980. Preliminary forecasts and projections for 1980 Alaskan salmon fisheries. Informational Leaflet 183. Alaska Department of Fish and Game. Juneau, Alaska. 37 pp.

_____. 1981. Preliminary forecasts and projections for 1981 Alaskan salmon fisheries. Informational Leaflet 190. Alaska Department of Fish and Game. Juneau, Alaska. 38 pp.

_____. 1982. Preliminary forecasts and projections for 1982 Alaskan salmon fisheries. Informational Leaflet 197. Alaska Department of Fish and Game. Juneau, Alaska. 39 pp.

_____. 1983. Preliminary forecasts and projections for 1983 Alaskan salmon fisheries. Informational Leaflet 209. Alaska Department of Fish and Game. Juneau, Alaska. 41 pp.

_____. 1984. Preliminary forecasts and projections for 1984 Alaskan salmon fisheries. Informational Leaflet 244. 53 pp.

Eggers, D.M. 1985. Preliminary forecasts and projections for 1985 Alaska salmon fisheries. Informational Leaflet 244. Alaska Department of Fish and Game. Juneau, Alaska. 53 pp.

_____. 1986. Preliminary forecasts and projections for 1986 Alaska salmon fisheries. Informational Leaflet 253. Alaska Department of Fish and Game. Juneau, Alaska. 55 pp.

Eggers, D.M. and M.R. Dean. 1987. Preliminary forecasts and projections for 1987 Alaska salmon fisheries. Informational Leaflet 259. Alaska Department of Fish and Game. Juneau, Alaska. 52 pp.

_____. 1988. Preliminary forecasts and projections for 1988 Alaska salmon fisheries. Regional Information Report 5J88-1. Alaska Department of Fish and Game. Juneau, Alaska. 60 pp.

Geiger, H.J. and H.M. Savikko. 1989. Preliminary forecasts and projections for 1989 Alaska salmon fisheries. Regional Information Report 5J89-01. Alaska Department of Fish and Game. Juneau, Alaska. 60 pp.

_____. 1990. Preliminary forecasts and projections for 1990 Alaska salmon fisheries. Regional Information Report 5J90-03. Juneau, Alaska. 78 pp.

_____. 1991. Preliminary forecasts and projections for 1991 Alaska salmon fisheries and summary of the 1990 season. Regional Information Report 5J91-01. Juneau, Alaska. 70 pp.

_____. 1992. Preliminary forecasts and projections for 1992 Alaska salmon fisheries and summary of the 1991 season. Regional Information Report 5J92-05. Juneau, Alaska. 74 pp.

_____. 1993. Preliminary forecasts and projections for 1993 Alaska salmon fisheries and summary of the 1992 season. Regional Information Report 5J93-04. Juneau, Alaska. 79 pp.

Hansen, J.A. 1985. FRED 1984 Annual Report to the Alaska State Legislature. FRED Report 42. Alaska Department of Fish and Game, FRED Division. Juneau, Alaska.

_____. 1986. FRED 1985 Annual Report to the Alaska State Legislature. FRED Report 59. Alaska Department of Fish and Game, FRED Division. Juneau, Alaska.

_____. 1987. FRED 1986 Annual Report to the Alaska State Legislature. FRED Report 70. Alaska Department of Fish and Game, FRED Division. Juneau, Alaska.

Holland, J.S. 1988. FRED 1987 Annual Report to the Alaska State Legislature. FRED Report 81. Alaska Department of Fish and Game, FRED Division. Juneau, Alaska.

_____. 1989. FRED 1988 Annual Report to the Alaska State Legislature. FRED Report 89. Alaska Department of Fish and Game, FRED Division. Juneau, Alaska.

_____. 1990. FRED 1989 Annual Report to the Alaska State Legislature. FRED Report 101. Alaska Department of Fish and Game, FRED Division. Juneau, Alaska.

Holland, J.S. and M. McKean. 1992. FRED 1991 Annual Report to the Alaska State Legislature. FRED Report 117. Alaska Department of Fish and Game, FRED Division. Juneau, Alaska.

McNair, M. and J.S. Holland. 1993. FRED 1992 Annual Report to the Alaska State Legislature. FRED Report 127. Alaska Department of Fish and Game, FRED Division. Juneau, Alaska.

McKean, M. 1991. FRED 1990 Annual Report to the Alaska State Legislature. FRED Report 109. Alaska Department of Fish and Game, FRED Division. Juneau, Alaska.

McMullen, J.C., J.A. Hansen, and M.W. Kissel. 1983. FRED 1982 Annual Report to the Alaska State Legislature. FRED Report 2. Alaska Department of Fish and Game, FRED Division. Juneau, Alaska.

McMullen, J.C., J.A. Hansen. 1984. FRED 1983 Annual Report to the Alaska State Legislature. FRED Report 22. Alaska Department of Fish and Game, FRED Division. Juneau, Alaska.

Mills, M.J. 1992. Harvest, catch, and participation in Alaska sport fisheries during 1991. Fishery Data Series No. 92-40. Alaska Department of Fish and Game, Division of Sport Fisheries. Juneau, Alaska.

Mills, M.J. *in press*. Harvest, catch, and participation in Alaska sport fisheries during 1992. Fishery Data Series. Alaska Department of Fish and Game, Division of Sport Fisheries. Juneau, Alaska.

Peltz, L. and J. Miller. 1991. Performance of half-length coded wire tags in a pink salmon hatchery marking program. American Fisheries Society Symposium 7:244-252.

Rigby, P., J. McConnaughey, and H. Savikko. 1991. Alaska commercial salmon catches, 1878-1991. Regional Information Report No. 5J91-16. Alaska Department of Fish and Game. Juneau, Alaska.

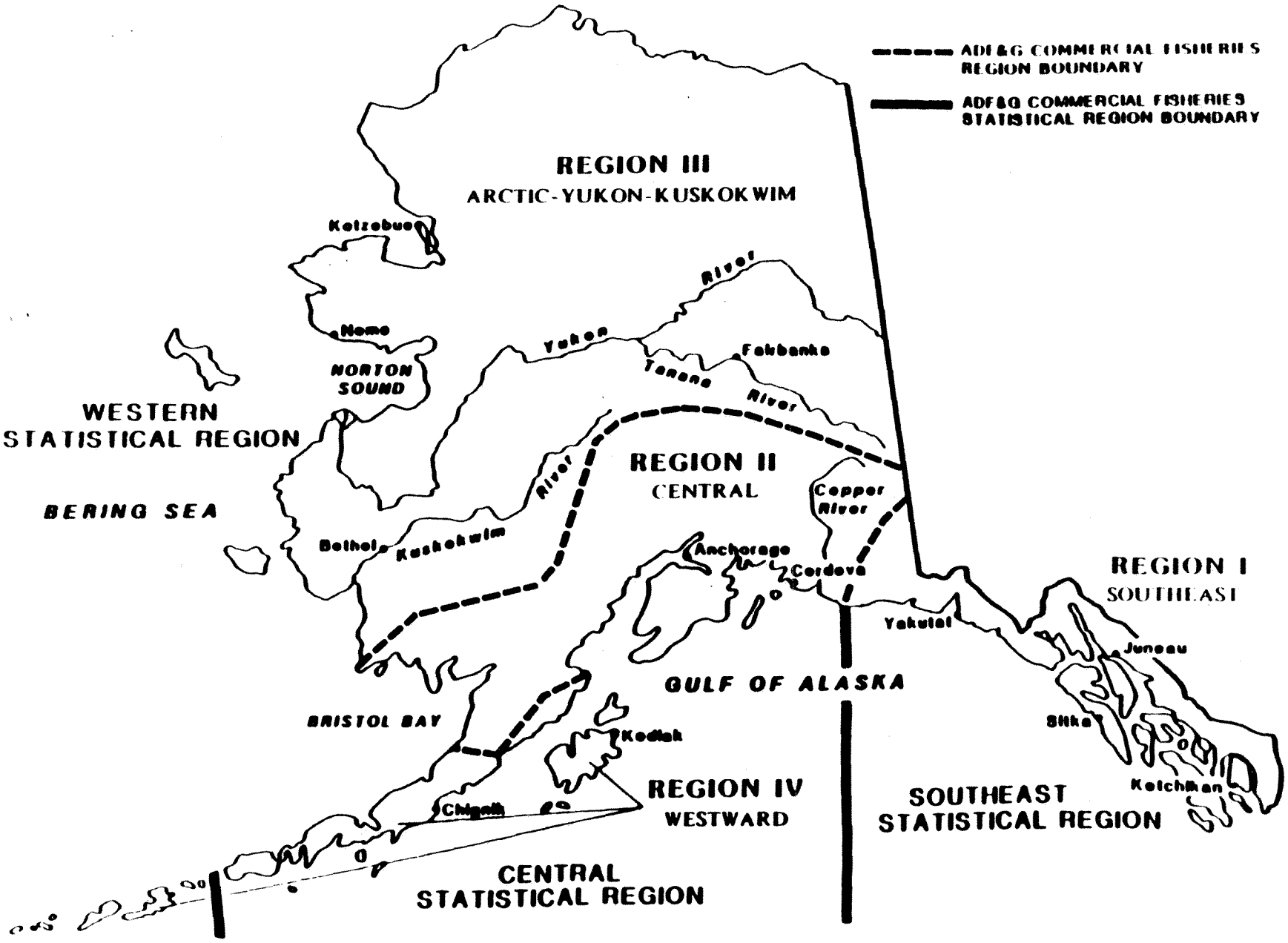

Figure 1. The three statistical regions (Western, Central, Southeastern) and the four fisheries regions (Westward, A-Y-K, Central, Southeastern) of the Alaska Department of Fish and Game, Division of Commercial Fisheries.

Table 1. Preliminary 1992 Alaska commercial salmon harvests by fishing area and species, in thousands of fish. Note columns do not add exactly due to rounding.

	SPECIES					
Fishing Area	Total	Sockeye	Pink	Chum	Coho	Chinook
Southeast Region	46,500	2,660	35,000	4,960	3,680	233
Prince William Sound	11,402	1,800	8,600	334	618	41
Upper Cook Inlet	10,565	9,100	696	274	469	17
Lower Cook Inlet	685	177	480	22	4	2
Bristol Bay	33,606	32,000	494	885	191	69
Central Region	56,300	43,100	10,300	1,520	1,280	129
Kodiak Area	8,441	4,160	3,300	679	278	24
Chignik	3,550	1,500	1,500	243	296	11
South Peninsula	14,862	3,500	9,600	1,353	402	7
North Peninsula	4,218	3,500	179	332	194	13
Aleutian Islands	301	2	299	0	0	0
Westward Region	31,400	12,700	14,900	2,610	1,170	56
AYK Region	2,730	192	92	1,360	886	193
TOTAL ALASKA	137,000	58,700	60,300	10,500	7,020	611

Table 2.1 Alaska sport sea-run salmon harvests, 1982-1992, by sportfishing region, in thousands of fish. Refer to Figure 1 for an explaination of statistical regions.

	Harvest										
Area Fished	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Southeast Stat. Region	138	139	136	164	126	146	132	215	236	258	212
Centeral Stat. Region	430	374	464	445	575	808	750	859	653	761	805
Western Stat. Region	29	20	26	10	20	16	25	24	19	18	22
Alaska Total	597	533	626	619	721	970	908	1,097	909	1,037	1,039

Table 2.2 Alaska sport sea-run chinook salmon harvests, 1982-1992, by sportfishing region, in thousands of fish.

	Harvest										
Area Fished	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Southeast Stat. Region	26	22	22	25	23	24	26	31	51	60	43
Centeral Stat. Region	46	57	61	63	80	90	104	88	71	88	109
Western Stat. Region	3	4	2	3	3	2	4	3	2	2	2
Alaska Total	75	83	85	91	105	116	134	123	124	150	154

Table 2.3 Alaska sport sea-run coho salmon harvests, 1982-1992, by sportfishing region, in thousands of fish.

	Harvest										
Area Fished	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Southeast Stat. Region	53	55	60	60	58	50	44	91	105	124	100
Centeral Stat. Region	136	88	167	138	189	177	226	237	214	255	237
Western Stat. Region	6	6	12	3	9	8	12	10	7	11	8
Alaska Total	196	149	239	201	256	235	281	338	326	390	346

Table 2.4 Alaska sport sea-run sockeye salmon harvests, 1982-1992, by sportfishing region, in thousands of fish.

	Harvest										
Area Fished	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Southeast Stat. Region	4	6	5	4	6	9	8	13	10	10	9
Centeral Stat. Region	128	171	119	168	180	468	282	423	228	317	363
Western Stat. Region	0	0	1	0	0	1	2	0	1	1	0
Alaska Total	133	177	124	173	186	478	291	437	239	327	373

Table 2.5 Alaska sport sea-run pink salmon harvests, 1982-1992, by sportfishing region, in thousands of fish.

	Harvest										
Area Fished	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Southeast Stat. Region	54	52	44	69	33	57	45	71	65	58	54
Centeral Stat. Region	106	47	101	68	109	61	108	90	132	92	87
Western Stat. Region	14	5	9	1	3	1	4	4	8	2	8
Alaska Total	174	104	154	138	146	119	157	165	206	151	149

Table 2.6 Alaska sport sea-run chum salmon harvests, 1982-1992, by sportfishing region, in thousands of fish.

	Harvest										
Area Fished	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Southeast Stat. Region	2	3	5	6	5	5	10	9	5	6	6
Centeral Stat. Region	13	11	16	8	17	13	30	20	7	9	8
Western Stat. Region	6	5	3	3	4	3	4	6	2	3	3
Alaska Total	21	19	24	17	27	21	44	35	15	18	17

Table 3. Alaska subsistence harvest for 1992, by area and species. Effort is in permits issued, except in the Yukon where effort is in families fishing.

	ALL SPECIES	SOCKEYE	PINK	CHUM	COHO	CHINOOK	EFFORT
Western Alaska							
Arctic-Yukon-Koskowim							
Kotzebue 1/		--- NO DATA ---					-
Norton Sound 1/		--- NO DATA ---					-
Yukon	349,057	0	0	250,000	51,980	47,077	1,335
Kuskokwim 2/	180,950	31,497	NA	-	87,954	61,499	3,313
Bristol Bay	165,527	125,017	5,170	8,894	10,403	16,043	1,200
Alaska Peninsula, north side 3/		--- DATA NOT YET AVAILABLE ---					-
Aleutian Islands 3/		--- DATA NOT YET AVAILABLE ---					-
Central Alaska							
Alaska Peninsula, south side 3/		--- DATA NOT YET AVAILABLE ---					-
Chignik 3/		--- DATA NOT YET AVAILABLE ---					-
Kodiak 3/		--- DATA NOT YET AVAILABLE ---					-
Cook Inlet 3/							
Upper Cook Inlet		--- DATA NOT YET AVAILABLE ---					
Lower Cook Inlet		--- DATA NOT YET AVAILABLE ---					
Prince William Sound	1,853	967	343	148	392	3	14
Copper River Flats	989	805	-	-	42	142	
Upper Copper River	134,192	127,670	0	0	1,817	4,705	655
Bering River		--- NO DATA ---					
Southeastern Alaska							
Yukutat	3,086	2039	9	0	881	157	50
Southeast Alaska	39,497	34,321	2,092	2,077	953	54	1,820

1/ Annual subsistence salmon harvest records are not routinely collected from communities in this area.
2/ Numbers are minimal estimates due to missing or incomplete data.
3/ This information is not yet available for 1992. It is expected early in 1994.

Table 4.1. Alaskan salmon hatchery 1992 eggtakes. Private nonprofit (PNP) data are provided separate from data on state run hatcheries (FRED Division of the Alaska Department of Fish and Game).

Region	TOTAL	Sockeye	Pink	Chum	Coho	Chinook	Other
ARCTIC/YUKON/KUSKOKWIM							
FRED	15,275,000			11,431,000			3,844,000
	15,275,000	0	0	11,431,000	0	0	3,844,000
COOK INLET							
FRED	34,202,900	24,525,000			2,577,000	2,567,000	4,533,900
PNP	73,530,000	12,610,000	60,000,000		920,000		
	107,732,900	37,135,000	60,000,000	0	3,497,000	2,567,000	4,533,900
KODIAK & AK PENINSULA							
FRED	228,740,000	18,260,000	196,843,000	12,634,000	1,003,000		
	228,740,000	18,260,000	196,843,000	12,634,000	1,003,000	0	0
PRINCE WILLIAM SOUND							
FRED	21,080,000	21,080,000					
PNP	823,680,000	8,000,000	677,460,000	132,240,000	4,710,000	1,270,000	
	844,760,000	29,080,000	677,460,000	132,240,000	4,710,000	1,270,000	0
SOUTHEAST							
FRED	20,037,800	15,638,000			1,274,000	3,070,000	55,800
PNP	530,520,000	4,930,000	145,460,000	363,120,000	10,880,000	6,130,000	
	550,557,800	20,568,000	145,460,000	363,120,000	12,154,000	9,200,000	55,800
TOTALS	1,747,065,700	105,043,000	1,079,763,000	519,425,000	21,364,000	13,037,000	8,433,700

Table 4.2. Alaskan salmon hatchery 1992 releases. Private nonprofit (PNP) data are provided separate from data on state run hatcheries (FRED Division of the Alaska Department of Fish and Game).

Region	TOTAL	Sockeye	Pink	Chum	Coho	Chinook	Other
ARCTIC/YUKON/KUSKOKWIM							
FRED	11,069,288			8,448,000			2,621,288
	11,069,288	0	0	8,448,000	0	0	2,621,288
COOK INLET							
FRED	25,409,171	17,756,000			2,084,000	2,121,000	3,448,171
PNP	43,900,000	8,450,000	31,950,000	3,110,000	390,000		
	69,309,171	26,206,000	31,950,000	3,110,000	2,474,000	2,121,000	3,448,171
KODIAK & AK PENINSULA							
FRED	191,829,000	6,398,000	153,300,000	31,500,000	631,000		
	191,829,000	6,398,000	153,300,000	31,500,000	631,000	0	0
PRINCE WILLIAM SOUND							
FRED	27,174,200	27,109,000				65,200	
PNP	604,130,000	4,370,000	495,490,000	100,640,000	3,060,000	570,000	
	631,304,200	31,479,000	495,490,000	100,640,000	3,060,000	635,200	0
SOUTHEAST							
FRED	10,989,230	7,912,100			1,619,600	1,422,300	35,230
PNP	427,140,000	3,130,000	121,030,000	290,500,000	6,840,000	5,640,000	
	438,129,230	11,042,100	121,030,000	290,500,000	8,459,600	7,062,300	35,230
TOTALS	1,341,640,889	75,125,100	801,770,000	434,198,000	14,624,600	9,818,500	6,104,689

Table 5. Fry or smolt released from private nonprofit hatcheries in Alaska for the years 1976 to 1992, expressed in millions of juvenile salmon.

Year	Total	Sockeye	Pink	Chum	Coho	Chinook
1976	4		4	0	0.00	
1977	12		12	0	0.00	
1978	27		26	1	0.00	
1979	29		28	1	0.00	
1980	36		32	3	0.56	0.00
1981	102		79	22	0.90	0.00
1982	127		103	24	0.70	0.15
1983	170		127	42	1.57	0.14
1984	218		159	55	3.23	0.38
1985	302	0	199	98	4.22	0.72
1986	381	0	272	100	4.28	4.05
1987	461	1	299	150	5.44	5.94
1988	820	1	626	186	4.72	2.21
1989	860	8	553	287	9.04	3.27
1990	925	8	685	217	10.73	4.70
1991	1,087	8	704	359	11.50	3.90
1992	1,075	16	648	394	10.28	6.21